

RCC Ground Rubber Subcommittee

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To: RCC – Tire Cluster Members
From: RCC – Ground Rubber Subcommittee
Subject: Draft Final Recommendations

During its October 2003 conference call the members of the Tire Cluster agreed to form subcommittees to address the emerging issues raised by the full Tire Cluster. Subcommittees were formed for Tire Derived Fuel, Civil Engineering Applications, Rubberized Asphalt and Ground Rubber.

This report presents the final recommendations of the *Ground Rubber Subcommittee* (GRS).

The GRS teleconferenced on January 6, January 15 and April 7, 2004. The GRS identified ground rubber use categories, barriers to use, and solutions for overcoming the barriers to use.

The ground rubber use categories are identified in *Table 1*.

Table 1 – Ground Rubber Use	
Use Category	Products/Uses
Asphalt/Sealants	Being addressed by the Rubberized Asphalt Subcommittee
Molded Products	Flooring, mats, extruded products, play ground tiles, bound
Sports Surfacing	Running tracks, pour-in-place, loose, sports field/turf (athletic fields, golf courses, horse arenas, etc.)
Tires	Manufacturing of tires
Surface Modified	ART – “Revive Rubber”, National – “Symar”, Poly Vulc
Plastic Blends	Lumber, railroad ties
Animal Bedding	Pillow mats
Landscaping	Mulch, soil amendment for growing plants
Misc.	Other uses

The four major ground rubber use markets today are:

- **Playground** – (loose, tiles, pour-in-place);
- **Sports Surfacing** – (sports turf, top dressing, golf courses);
- **Colored mulch** – (effectively being marketed today, biggest barrier is cost, address institutional barriers); and
- **Molded Products** – (flooring, mats & extruded products).

Barriers to the market and solutions to removing those barriers are discussed in *Table 2*. The key to increasing ground rubber use markets is to provide technical assistance, information, and resources to the ground rubber producers. The recommended solutions presented in *Table 2* are primarily targeted at the producers, recognizing that they are the key to increasing the ground rubber markets. The best we can do is provide the ground rubber producers the information and resources and “suggest” what they can or should do.

Table 2 – Market Barriers/Solutions	
Barriers(s)	Solutions
<ul style="list-style-type: none"> □ Health Issues: <ul style="list-style-type: none"> ✓ Toxicology ✓ Volatility (Fumes) □ Environmental Issues <ul style="list-style-type: none"> ✓ Leachate □ Safety Issues <ul style="list-style-type: none"> ✓ Flammability (rate of spread) ✓ Wire □ Ground Rubber Marketing <ul style="list-style-type: none"> ✓ Very few ground rubber producers are good at marketing their products ✓ Ground rubber producers have very little money available for marketing ✓ In many cases the producer's marketing of ground rubber produce amounts to undercutting competitor's price. □ Quality Control <ul style="list-style-type: none"> ✓ Ground rubber producers still have great difficulty producing consistent product that meets user specifications ✓ Very few ground rubber producers have active/effective quality control programs □ Other Issues <ul style="list-style-type: none"> ✓ Will the black rub off ✓ Colorizing (health, environmental) ✓ Bugs (mulch) ✓ Product floating away after heavy rain (mulch) ✓ Loss of <u>existing</u> market because producers cannot produce a consistent product. 	<p>Need Champions:</p> <p>Along with the champions, a key ingredient is <i>persistence</i>. Promoting a ground rubber derived product can't be a one-time event.</p> <ul style="list-style-type: none"> □ National – Recommend that EPA through RCC be the primary champion and spearhead the effort. <ul style="list-style-type: none"> ✓ Compile success stories ✓ Compile studies to address institutional barriers of each ground rubber product. ✓ Subcommittee develop a recommendation that EPA through RCC effort spearhead needed studies. Identify partners to co-sponsor the study(s). ✓ Develop a manual on what the various ground rubber products are and how to them. ✓ Develop technical reports that can be used by the industry to market their products. ✓ Place reports on various partner Web-sites; create links to (EPA, RMA, STN, RCC, etc. websites). ✓ Outreach through conferences □ States <ul style="list-style-type: none"> ✓ Develop champions in each state ✓ Educate – sell on products merits □ Other Partners <ul style="list-style-type: none"> ✓ Playground organizations

- ✓ Playground safety organizations
- ✓ Sports injury organizations
- ✓ Medical groups
- ✓ Other agencies
- ✓ Non-profit

Table 2 – Market Barriers/Solutions

Barriers(s)	Solution(s)
<p>Institutional:</p> <ul style="list-style-type: none"> □ Health Issues: <ul style="list-style-type: none"> ✓ Toxicology ✓ Volatility (Fumes) □ Environmental Issues <ul style="list-style-type: none"> ✓ Leachate □ Safety Issues <ul style="list-style-type: none"> ✓ Flammability (rate of spread) ✓ Wire □ Other Issues <ul style="list-style-type: none"> ✓ Will the black rub off ✓ Colorizing (health, environmental) ✓ Bugs (mulch) ✓ Product floating away after heavy rain (mulch) 	<p>States:</p> <p>State experience: Some ground rubber products are not viable without state subsidies.</p> <p>States also subsidize to give higher visibility to their program's and the good it is doing</p> <p>Downside – state subsidies go away and the market for the product goes away.</p> <p>Subcommittee recommendations:</p> <ul style="list-style-type: none"> ✓ Ensure subsidized demonstration projects have a heavy education component. ✓ Conduct studies to show benefit of product (e.g. playground or gym tiles material show reduction in injury – that results in medical and insurance savings). The studies may be a grant condition – have the grant recipient show the benefits. ✓ Ask states to provide recommendations on other things states can do to increase ground rubber market.